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IN THE MATTER OF THE GENERIC  
PROCEEDINGS CONCERNING ELECTRIC  
RESTRUCTURING ISSUES.

Docket No. E-00000A-02-0051

IN THE MATTER OF ARIZONA PUBLIC  
SERVICE COMPANY'S REQUEST FOR  
VARIANCE OF CERTAIN REQUIREMENTS  
OF A.A.C. R14-2-1606

Docket No. E-01345A-01-0822

IN THE MATTER OF THE GENERIC  
PROCEEDINGS CONCERNING THE  
ARIZONA INDEPENDENT SCHEDULING  
ADMINISTRATOR

Docket No. E-00000A-01-0630

ISSUES IN THE MATTER OF TUCSON  
ELECTRIC POWER COMPANY'S  
APPLICATION FOR A VARIANCE OF  
CERTAIN ELECTRIC COMPETITION RULES  
COMPLIANCE DATES

Docket No. E01933A-02-0069

**TUCSON ELECTRIC POWER  
COMPANY'S TRACK "B"  
ENVIRONMENTAL ANALYSIS**

Tucson Electric Power Company, ("TEP"), through undersigned counsel, and pursuant to  
Finding of Fact No. 31, Decision No. 65743 (March 14, 2003), hereby submits its Track "B"  
Environmental Analysis, as follows:

**I. INTRODUCTION.**

Finding of Fact No. 31 states in relevant part:

APS and TEP shall test the market in this solicitation, beyond the required power that cannot be produced from their respective existing assets or existing contracts, which will also allow APS and TEP to evaluation whether reliable generation is available at lower cost than that produced by their own existing assets, or at a comparable level of cost....We will require the utilities to prepare an environmental analysis for this Commission and submit it to this docket within 90 days of completion of the solicitation. That analysis will detail the environmental effects of the utilities' power supply portfolio resulting from this

solicitation against a benchmark analysis of the environmental impacts of the utilities' past five years of operations.

TEP understands the import of Finding of Fact No. 31 to be to provide the Commission with initial data that can be used "for measuring and weighing environmental impacts" of acquiring power from the competitive marketplace. As the Commission stated, this initial solicitation was a test of the marketplace. Accordingly, TEP believes that this data should be reviewed in the context in which it was obtained—a first time solicitation process—that inevitably will be refined as it is repeated. Consequently, TEP believes that the Commission should withhold judgment at this time as to proper environmental criteria. TEP will work with the Commission Staff to undertake further analysis of environmental impact data, if necessary, in order to develop appropriate criteria.

## **II. TEP'S SOLICITATION RESULTS.**

As a result of the Track B solicitation process outlined in Decision No. 65743, TEP was able to negotiate agreements with two power producers; (i) PPL EnergyPlus, LLC ("PPL"); and (ii) Panda Gila River L.C. ("Panda"). TEP has provided to the Commission Staff, on a confidential basis, a copy of PPL and Panda agreements. However, the relevant terms of each agreement are summarized as follows:

### **(i) The PPL Agreement.**

PPL will provide to TEP thirty-seven (37) Megawatts of "unit contingent day ahead dispatchable capacity with associated energy" from June 2003 through December 2003. PPL's obligation increases to seventy-five (75) Megawatts from January 2004 through December 2006. The point of delivery for the energy is TEP's Saguaro Substation. The price for the capacity and energy was calculated based upon a set capacity charge and a price for the energy that is derived from an established daily gas index.

1  
2 (ii) **The Panda Agreement.**

3 Panda will provide to TEP fifty (50) Megawatts of "on-peak unit contingent energy"  
4 from June 2003 through December 2005. The point of delivery for this energy is the Palo Verde  
5 Substation. TEP and Panda entered into two (2) separate agreements to complete this transaction,  
6 each of which had a separate pricing mechanism. One agreement (representing fifteen (15)  
7 Megawatts) provides for a fixed price. The other agreement (representing thirty-five (35)  
8 Megawatts) provides for pricing based on a gas index and fixed heat rate.  
9

10 **III. EMISSIONS EVALUATION.**

11 A comparative analysis of emissions from TEP's gas generation units from June 1998  
12 through July 2003 is provided in Table 1. Emissions from PPL's Sundance Unit and Panda's Gila  
13 River Unit 4 units are incremental additions to emissions from TEP's gas generation units.  
14

15 The emissions from TEP's existing generation units are ascertainable and, therefore are  
16 represented in Table 1. Similarly, Table 1 also reflects the estimated emissions calculated from the  
17 amount of power provided by PPL's and Panda's generation units as well as the emissions data  
18 provided to TEP in the Track B solicitation process. The data provided for PPL and Panda in Table  
19 1 is only for the months of June and July 2003, as those are the only months those generation units  
20 have provided power to TEP under their respective agreements.

21 TEP also purchases power from the spot wholesale market when it is economical. The  
22 wholesale marketplace does not track or disseminate emission data for these types of purchases.  
23 Accordingly, Table 1 does not reflect emission data from TEP's spot wholesale market purchases.  
24  
25  
26

**Table 1**

Plant Name & Unit	1998 June/July	1999 June/July	2000 June/July	2001 June/July	2002 June/July	2003 June/July
Irrington Unit 1						
NOx (stated in tons)	22.3	26.3	61.3	55.7	57	39.1
CO (stated in tons)	3.2	4.5	8	7.1	6.8	5.6
Irrington Unit 2						
NOx	33.4	41	78.9	58.6	66.3	49.9
CO	4.5	5.3	8.1	7.8	7.2	6
Irrington Unit 3						
NOx	26.4	49.6	93.3	78.8	82.7	61.6
CO	3.4	6.3	8	8.9	9.1	7
DeMoss Petrie Unit GT1						
NOx	-	-	-	-	2.92	0.876
CO	-	-	-	-	2.6	1
North Loop Unit NLGT4						
NOx	-	-	-	0.26	2.14	0.18
CO	-	-	-	0.25	1.94	0.14
Sundance (PPL)						
NOx	-	-	-	-	-	2.4
CO	-	-	-	-	-	0.8
Gila River Unit 4 (Panda)						
NOx	-	-	-	-	-	0.9
CO	-	-	-	-	-	0.5
Total NOx	82	117	234	193	211	155
Total CO	11	16	24	24	28	21

1 Table 1 shows that although Sundance and Gila River Unit 4 added 3.2 tons of NOx and 1.3  
2 tons of CO emissions, total reported emissions for June-July declined in 2003. There are two (2)  
3 key reasons for the decline that are unrelated to the PPL and Panda agreements.

4 First, in 2003, TEP completed a system upgrade, which resulted in lower local gas-fired  
5 generation. One of the key factors that influences the amount of electricity that is generated (and  
6 consequently emissions produced) locally is Reliability Must Run ("RMR") generation that is  
7 required for TEP's electric system. In May 2003, TEP completed the construction of a second  
8 transmission line between the Saguaro and Tortolita Substations. This second transmission line  
9 allowed TEP to increase the amount of energy imported into its service territory thereby reducing  
10 the amount of required RMR (and associated emissions).

11 Secondly, TEP was able to purchase some power from the wholesale spot market at prices  
12 that were under the incremental cost of its local gas generation. TEP believes that this  
13 phenomenon is attributable to the recent addition of generation plants in central Arizona, which has  
14 caused power prices in the Southwest wholesale market to decrease in relation to natural gas prices.

#### 15 IV. CONCLUSION.

16 Based upon the data available at this time, TEP believes that reduction in emissions  
17 reflected in Table 1 is attributable to a combination of (i) reduced RMR generation; and (ii)  
18 economically favorable spot market purchases. At the same time, TEP acknowledges that the same  
19 market purchases that displaced local gas generation in TEP's service territory invariably resulted  
20 in emissions at other generation units in other areas. However, as previously discussed the  
21 emissions data from these types of wholesale purchases are not available. For the reasons stated  
22 herein, TEP believes that additional information should be compiled by the Commission before it  
23 can establish environmental criteria for utilities' power supply portfolios, especially as the  
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25  
26

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1 wholesale marketplace is developing. Again, TEP is willing to work with Commission Staff to  
2 compile any such additional information.

3 RESPECTFULLY SUBMITTED this 15th day of August 2003.

4  
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16 filed August 15, 2003, with:

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21 **COPIES** of the foregoing hand-delivered  
22 August 15, 2003, to:

23 The Honorable Marc Spitzer  
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22 **COPIES** of the foregoing sent via electronic mail  
23 on August 15, 2003, to the Service List for Track B Proceeding

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